We claim:

1. A method for targeting degradation of a polypeptide in vivo comprising:
providing a ubiquitin protein ligase polypeptide that encodes a ubiquitin conjugation activity, which is functionally linked to a target polypeptide interaction domain that provides a target polypeptide recruitment activity;
expressing said ubiquitin protein ligase polypeptide-target polypeptide interaction domain hybrid in a cell;
recruiting the target polypeptide to said ubiquitin protein ligase polypeptide; and
ubiquitinating the target polypeptide,
thereby forming a ubiquitin-target polypeptide conjugate which is targeted for degradation.

2. The method of claim 1, wherein the ubiquitin-target polypeptide conjugate further undergoes ubiquitin-dependent proteolysis.

3. The method of claim 2, wherein said ubiquitin-dependent proteolysis is by the proteasome.

4. The method of claim 1 wherein the ubiquitin protein ligase polypeptide is an E3 ubiquitin protein ligase.

5. The method of claim 4, wherein the E3 ubiquitin protein ligase is selected from the group consisting of: an SCF polypeptide, a HECT polypeptide, and a UBR1 polypeptide.

6. The method of claim 5, wherein the SCF polypeptide is an F-box polypeptide.

7. The method of claim 6, wherein the F-box polypeptide further comprises a WD domain.

8. The method of claim 6, wherein the F-box polypeptide is selected from the group consisting of Cdc4p, Pop1p, Pop 2p, Grr1p, Met30p, HOSp, beta TrCPp, and FWD1p.

9. The method of claim 6, wherein the F-box polypeptide is a polypeptide selected from the group consisting of SEQ ID Nos. 2, 4, 6, 8, 10, and 12.

10. The method of claim 6, wherein the F-box polypeptide is encoded by a nucleic acid selected from the group consisting of SEQ ID Nos. 1, 3, 5, 7, 9, and 11.

11. The method of claim 5, wherein the SCF polypeptide is selected from the group consisting of: a Cdc4 polypeptide, a Skp1 polypeptide or a cullin polypeptide.

12. The method of claim 5, wherein the HECT polypeptide is selected from the group consisting of E6-AP, Nedd-4, RSP5, Smurf1, TOM1 and EDD.

13. The method of claim 5, wherein the E3 ubiquitin protein ligase is a yeast or a mammalian UBR1 polypeptide.

14. The method of claim 1, wherein the target polypeptide interaction domain is selected from the group consisting of a papillomavirus E7 polypeptide, and an SV40 LTP polypeptide.

15. The method of claim 1, wherein the target polypeptide is selected from the group consisting of a retinoblastoma polypeptide, a p107 polypeptide, IκB, Sic1p, Cln2p, E2 or beta-catenin.

16. A method for decreasing the level of a target polypeptide comprising:
providing an SCF recruitment domain which is operably linked to a target polypeptide interaction domain to form an SCF recruitment domain-target polypeptide interaction domain fusion protein; and
expressing the SCF recruitment domain-target polypeptide interaction domain fusion protein such that the level of said target polypeptide is decreased.

17. The method of claim 16, wherein the SCF recruitment domain is an F-box polypeptide.

18. The method of claim 17, wherein the F-box polypeptide further comprises a WD domain.

19. The method of claim 17, wherein the F-box polypeptide is selected from the group consisting of Cdc4p, Grr1p, Pop1p, Pop 2p Met30p, HOSp, betaTrCp, and FWD1.

20. The method of claim 17, wherein the F-box polypeptide is at least 70% to a polypeptide of at least 20 contiguous amino acids of a polypeptide selected from the group consisting of SEQ ID Nos. 2, 4, 6, 8, 10, and 12.

21. The method of claim 17, wherein the F-box polypeptide is encoded by a nucleic acid which hybridizes to a nucleic acid selected from the group consisting of 1, 3, 5, 7, 9, and 11.

22. A method for creating a destabilized polypeptide subject to SCF-mediated proteolysis comprising:
providing an SCF recruitment domain; and
operably linking the SCF recruitment domain to the polypeptide, thereby creating the destabilized polypeptide subject to SCF-mediated proteolysis.

23. A method for expressing a destabilized target polypeptide subject to SCF-mediated proteolysis comprising:
providing an SCF recruitment domain which is operably linked to a target polypeptide and expressing the SCF-target polypeptide fusion, thereby expressing a destabilized target protein.

24. A nucleic acid for expressing an SCF recruitment domain- target polypeptide interaction domain comprising:
a nucleic acid encoding an SCF recruitment domain; and
a nucleic acid encoding a heterologous polypeptide domain;
wherein the nucleic acid encoding the SCF recruitment domain and the nucleic acid encoding the heterologous polypeptide domain are operably linked so as to encode an SCF recruitment domain-heterologous polypeptide domain fusion protein.

25. The nucleic acid of claim 24, wherein the heterologous polypeptide domain is a target polypeptide.

26. The nucleic acid of claim 24, wherein the heterologous polypeptide domain is a target polypeptide interaction domain.

27. The nucleic acid of claim 24, wherein the nucleic acid encoding the SCF recruitment domain is at least 90% identical to a nucleic acid selected from the group consisting of SEQ ID Nos. 1, 3, 5, 7, 9, and 11.

28. The nucleic acid of claim 24, wherein the nucleic acid encoding the SCF recruitment domain hybridizes under stringent conditions to nucleic acid selected from the group consisting of SEQ ID Nos. 1, 3, 5, 7, 9, and 11.

29. A vector comprising a nucleic acid encoding an SCF recruitment domain and a cloning site for inserting an heterologous polypeptide encoding sequence.

30. A vector comprising a nucleic acid of claim 24.

31. A cell comprising a vector of claim 29 or claim 30.

32. A method of treating a cell to stabilize a target polypeptide of ubiquitin protein ligase comprising contacting the cell with a preparation comprising an effective amount of an organic compound which can competively inhibit interaction of the target polypeptide with the ubiquitin protein ligase.

33. The method of claim 32, wherein the organic compound is a peptide or peptidomimetic.

34. The method of claim 33, wherein the peptide or peptidomimetic is a competitive inhibitor of a WD domain.

35. The method of claim 33, wherein the peptide or peptidomimetic comprises a general chemical formula of G-H-X $^{(3-6)}$-h-X-X-h-X-r-X-t $^{(2-3)}$-p-X-h-h-X-X-X-X-D-X-X-X-X-h-W-D.

add C1

E2(E39A) over time were determined by immunoprecipitation followed by immunoblotting using the anti-EE monoclonol antibody (Babco).

To demonstrate the efficacy of the engineered ubiquitin system in mammalian cells, the human osteosarcoma Saos-2 cells lacking endogenous pRb were co-transfected with 5ug each of HA-tagged pRB and F-TrCP-E7(N) (lanes 1-3), or with 5ug each of HA-pRB and F-TrCP-E7(N)(ΔDLYC) (lanes 4-6) using the FuGENE transfection reagent, respectively. 36 hours after transfection, cells were starved for 1 hour in DMEM media without L-Met and L-Cys, pulse labeled for 1 hour with the ^{35}S-Express labeling mix, and then chased with fresh DMEM media containing 15% fetal calf serum at times 0, 3 hours and 6 hours. Cell lysates were prepared in NP-40 lysis buffer and 200 ug of each extracts were subjected to immunoprecipitation by the 12CA5 monoclonal antibody.

6. Polypeptide and Nucleic Acid Compositions

F-Box Polypeptides and F-Box Encoding Nucleic Acids

The F-box protein Cdc4p is encoded by a nucleic acid sequence corresponding to nucleotides 7558 to 9897 of GenBank Accession No.D31600 (SEQ ID No. 1) as shown below, and which encodes the F-box protein corresponding to GenBank Accession No. BAA06495 (SEQ ID No. 2) as shown below.

SEQ ID No. 1

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   1 ggatccgtgt cgtaactgcg ttccgtacac cttaaaatga actttccagc aggtgcacca
  61 tcttccaatc cattgaaaaa tcttactgat tcttcgacct cctcctggct taagtttgtc
 121 tccaaatgaa tatatagcag ccaaatcaat atgtttgatc tatcctttgg ctcgtatttc
 181 gaatagtcca gtatatcaaa taatgttgtt gcataagctg cttttgattc ttgtttttca
 241 ttttccgctt ccgtttcttt tacttcattc tgttcatcta ccatatcttg ctcctgagct
 301 ttcgatttga cttccacata cttggaaaga aacctcttgt caattaggcc ggaattatca
 361 catatgctaa acaacatatt aataatgtta aatttgttaa cggtgtccac ttcaccatca
 421 ttttggtcga ccttttttgta agtctccatc aatgagagtt gctcattgcc ccacggcaga
 481 tttttcagaa tagatttcag tctaggtgta tcctgcaaaa gtttcggatc attggcatgt
 541 aattgtaaaa ctggcacgga gtgaaaagtt ctcaattgcg atgtcatttc taaataaaaa
 601 tttatagtgg tgttcaacct accaatgttg accaataacg ctaaaacaca agtagaaaat
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 841 acaatagagt tcttgtatag gggttttaga acattagtga agatttgcct cttgtccatc
 901 aacagttctt gcatgaaact gaactgaatg tcctttctat tgaatggctc gccgtcaggt
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10561 ttctctaaat tggacaatgt aaataatgag tgtttttatg acacaatctt tatcgttaga
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10681 atgataaaca cgtacgggaa aaaaaaaaaa agtatcaata acgcgtaaag tgaatagagt
10741 attggattct ataagaccga agacgctcat atcacatctc ataaaatcac ttaaagcaag
10801 catccagagg ctattgataa aaagcaggca caaggagacg caatgggacg tttagttggc
10861 ttagaactaa gtaatttcaa gtcctataga ggcgttacca aggtaggatt cggcgagtcg
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10981 tcattcgtac tcggtgtgcg gagtaatcat ttgaggtcaa acatcttgaa agatttaatc
11041 tatagaggtg ttctaaacga tgagaatagt gacgattatg ataacgaggg cgctgcctct
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11341 agaatgtttg aagaagtatc aggttctatc caatacaaaa aggagtatga agagttgaag
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11581 caacaaaaag aggagctaac ggacaagctg tccgcattaa actctgaaat atcgtcttta
11641 aagggaaaaa taaataacga gatgaaatca ttacaacgct caaaatcttc ctttgttaaa
11701 gaaagcgcag taatttctaa gcaaaaaagt aaattagatt atatcttcaa ggataaggaa
11761 aaattagtct cggatttacg gctcataaag gttcctcaac aggcagcagg gaagcgaatt
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11881 gtggagagat ttgaaacaca actaaaagtg gtgaccagat caaaggaagc ttttgaagag
11941 gaaatcaaac aatctgctag aaactatgac aaattcaagc taaatgaaaa tgatttaaag
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12061 attgccgttt tgaacaacga taagcgagaa atccaagagg aattggagag attcaacaaa
12121 agggcagata tttctaaaag aaggataacg gaggagcttt ctataacagg agaaaaattg
12181 gacacgcaat taaacgattt aagagtttct ttgaatgaga aaaacgccct tcatactgaa
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12301 gacttaaatt tcaagttgag ggaaacgttg gttaagatcg atgacttgag tgctaatcaa
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12421 cccggagtaa aaggtcttgt tcatgatctt tgtcacccaa aaaaggagaa atatggcttg
12481 gcagtgtcta ccatcttagg taagaacttt gattccgtca ttgtagaaaa tttaaccgta
12541 gctcaagaat gcattgcatt tttgaagaag caacgtgcgg gcactgcatc tttcatacca
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12661 ttatcaatta atgctattga ctacgagccg gaatatgaaa aagcgatgca atatgtgtgt
12721 ggcgattcca tcatatgtaa tacgttgaat attgctaaag atctgaaatg gaaaaagggc
12781 ataagaggca aattggttac aattgaaggt gctttgatcc acaaggccgg tttgatgaca
12841 ggtggtatat caggagatgc caataatagg tgggataaag aagaatatca aagcttaatg
12901 tctttaaaag acaaattact aatccaaatc gatgaacttt ccaacggtca acgctctaat

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13021 ttgagaactc aagtaacaca acaaaaacgc tccttggatg aaaatcgttt agagattaag
13081 taccataatg acttgataga gaaagaaatt caaccgaaga taactgaact aaagaagaag
13141 ctagatgatt tagaaaatac taaagataat ttagtgaaag agaaggaggc tttacaaaat
13201 aatattttca aagaattcac tagtaaaatt ggctttacaa tcaaagaata tgaaaatcat
13261 tccggtgaat tgatgagaca acaatctaaa gaattacagc agttacaaaa acaaattttg
13321 accgttgaaa ataagttgca gtttgagaca gacagactaa gtactactca aagaagatat
13381 gaaaaggcgc aaaaggattt agagaatgct caagttgaaa tgaagtcttt ggaagaacag
13441 gaatatgcaa tagaaatgaa aatcggatca atagagtcta aattggaaga acacaaaaat
13501 cacttagatg agttacagaa gaaatttgta acgaagcaaa gtgaattaaa ttccagcgaa
13561 gatattctag aggacatgaa cagcaactta caagtcttaa aaagggaaag agacggtata
13621 aaggaagata ttgaaaagtt tgatttagag agagtaacag cgttaaagaa ttgtaaaatt
13681 tctaatataa atatacctat atcatctgaa acaacgatag atgatttacc aatatcttcc
13741 actgataatg aagcaattac aatttccaac agtatcgata taaactataa aggactacct
13801 aaaaaataca aagaaaacaa taccgattcg gcaaggaagg agctggagca gaagattcat
13861 gaagtggagg aaatattgaa cgagttgcag cccaatgcaa gagctttgga gagatacgac
13921 gaggcggaag gaaggtttga agtgattaat aacgaaacag aacaactaaa ggccgaagaa
13981 aagaaaatat taaaccagtt cctaaaaatt aagaaaaaaa gaaaggaact gttcgaaaag
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14101 aactccaatg tggaattggc cggtggtaac gcttctttaa ccatagaaga cgaagatgaa
14161 ccgttcaatg cgggaatcaa atatcatgcc actccgcctc ttaaaagatt caaagacatg
14221 gaatatcttt ctggtggtga aaaaaccgta gctgcattag ctctattatt tgctattaat
14281 tcctaccagc ctagtccctt cttcgtgctg gacgaagtgg acgcagccct agacattact
14341 aacgtccaga gaattgctgc ctatataaga aggcaccgta atccagatct ccaattcatt
14401 gtcatttcat tgaagaacac catgtttgaa aaatctgacg ctctcgttgg ggtttacaga
14461 cagcaacaag aaaactcgtc gaagatcata actttggact tgagcaatta cgcagaataa
14521 tctatgaaac caacctctgc tataacccgt caaataacta ataatatcta tataggtcaa
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14641 acccaattgt ggtgggtggc ggccgaggta tcccttagaa aagaattttt taagttcttt
14701 ctcatctctt accagtggag aagtacacga tatttgcaaa gtctgtcatc agggcttgat
14761 aataaagctg cattagatct tagcaaaaac tacgagaaga acattgaata ttgtagctgt
14821 atttgcatac ataaacttta tcattgttcg ttagctagct ttgcacatta atttttcgat
14881 ttgttaccgc caatgaccgc taacaatgac gatgatatca aatcacccat tcccattact
14941 aacaagacct tatcccaatt gaagcgcttt gagagaagtc caggaaggcc cagttcttct
15001 cagggcgaga taaaacgtaa aaagtctagg ctatatgccg cagacggaag accacattct
15061 ccgctaagag caaggtctgc taccccaacg ctacaggacc aaaaactgtt caatggcatg
15121 gattccactt ccctttttgaa tgaaaggcta cagcattata cgctggatta tgttagtgac
15181 agggcccagc atatgaagaa tatatatgac ccatcatctc gctggttcag cagatccgtg
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15301 gcgaaatact tgtgccatgt cttagttaat ctttatattg cgatcagctc attagatata

15361 caaggtttga tttctatttc cagtaaagat ctggctgatt taaagaaaga agtggatgat
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15721 aaggtgtata gacaaatgca tgtcgatatg ttcgaaagat tagtaagcct tgacgatgat
15781 aggacaaatt tcactgaact gttgcaaaaa caaggtcttt tgctagatca tcaaatcatg
15841 ctcaatttcc tgtgcgaatt tctaccttat ccagatcccg actatgctcg ttatgaatta
15901 tcatcaaagg aagatttaca gttatttaga ttacttttga agcatgcaca taatgcaaaa
15961 ccatttttcg ataagtcaaa ggaaagtttg ttagttgata cgatgaattt tctgttgtct
16021 agtcttgcac catctactat gatggctgtc atgcctatcg ttacatccgt tgtgccctat
16081 cattatcata tccattctaa gatcatcgat tatttcccgt tttgctatag catctggagc
16141 tcagtcagcg caaacgtggc catcgacact cacatgtatg attttgttgg gtcaatttcc
16201 aaagacgttc ataataagat tttgagtagc gagcatgaaa aggatgtagt tggagtggag
16261 tttggagaat tcgggatttt tactgatgat caaatgactt ttatgttcaa taggttacaa
16321 ggccatctta gaacagacgg tcaaatacat tcgtattccc gcacagtgaa gccttttgtt
16381 tatgctataa acggatcaaa aaaagatagg ttttttgaaa aacttgtaag tttagccaaa
16441 gcaatcgaaa catttatcca tcccctctaat aatgggtttt ggaccaagcc aaatgctaaa
16501 ttcgttcatg catttataaa gtcttaccac ggaagggtca aatatgaaga agatatttgt
16561 gctaggggcg tcacaaatgg gatatgttta acttcttttt gtcacgaaga gatagttgaa
16621 atattcttaa atattatcag tctgggttca cagaataaaa atcctgatat tgcgaactat
16681 tacatctctt gtttcgcata tctgttagag ctggatcctt caaatgcata tttaatttat
16741 gacaaaatac tgatagattt gtacgatacg ctggctgacc aatttatcaa ttcgagacac
16801 agaatcattt cctctttgaa acaatttaca agagtaattc ggtttattgt gatggataag
16861 ctatatcgcg tgcacataac aaacgtcctt tcgatgctgg tctccaaact tgatatgaac
16921 gatactaatt tgacaagcaa cctcatcaac ggtattgtat ctatagccgc tttcattcct
16981 atccaagacc tcactgggga ggacgattat atatcgtttg aatcggatac tcttccttta
17041 gttcaacaac atttttatca tattaagtgt ggcgaaagtt caaagacctt ccgagttgat
17101 gatgaactgt taaataacgc tttcaaagct tccactacag tttttcaaag tatgctaaaa
17161 gtatacgtag aaaaaatttt ccaattggtt gatgtagact tagaggactc tttggttact
17221 aaaataaacc aaacaactat gattttacaa gagtctatgg acgataaaat atttaattat
17281 tttgcttctt tattacagag aaacttctgg agtaatgact ccttcaagga aaaggatcca
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17581 ataacattca tgaaatattt atacgacaac gtcactaacc cgccattgga tgttatcaca
17641 tctattgtta ttcacagtgc tttagcaact ctatgtacaa ccgaaataac tgattgtcgt
17701 ctattcccag aggactctaa gattccggaa aaagacagat ggggaggact acagttcgat

17761 cctcgaagat ttgataaaca gcatttgagt tttcagtggc acgtaccttc tagtgacgag
17821 ataactttat ccataagcat tctagaaagc ctttccgaat actgtattaa caacgtagaa
17881 gaactgatga aagctccaag acatgattcc gaatatggcg atatgataca aaaatatgtt
17941 ttagttatga cacatacgct ttccgggtca agtttacttt ttgatccaga ttttaacaaa
18001 tataggacgc aatcaaactt atcatacaga gagaaactga ttttattaaa gaatatacgc
18061 gaaaataatt gtgaccctca agaactggat attgatattg aacaaattcg ttctggcaag
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18421 gcgcgcattg gacatttctt tcacaaactc tatgtttttt tatctacaaa cttcgaaaac
18481 aacaccaaca tgttccaaat tctattgcac ggattgaaag tttggttcac agatctggga
18541 caagaaacgg tcttcaatga agacccaaat gccttcattg acgttgattt cctagaaaac
18601 gttcaatctc tctcacacgt aaatgagccc ttcacgagaa ccaattttgc aatcagagca
18661 aacagtttgc accagagtag agttctatta cattcaacaa atagaaaagc ttccaagctg
18721 gaaaacctat tgttagttga catcatacag ttagcgacat ccctttatcc tgatatttat
18781 aaaccagcac agggaacttt ggtacactgt atgaaacaat tagttgggtc atatggcgta
18841 gtcatcaata aaattattcc atcattagag aaagcgatta aggatcatga ttatatgaaa
18901 atccaagtta ttttaaatgt tttgttaatt aagaaaatcc ataggaagct tatgacggat
18961 tataaagaca tcggcagatt gatatttctg cttattgaat gttgtcgtgt gaatgaatta
19021 gagattggta tgtatgcaga taaaatctta actgacatag tgattgggat caagattcct
19081 tctagtgtat gtgtcatttc cgatcaagct ttcttacctt tagcacctcc tgatggtact
19141 attaatttgc aagttgaagc ggtaaagctt gccaaaaaga aaaagcgtga gtactacctc
19201 tctctgttag tggatttgca ggacaaactt ttagacaaat tagataatga aaaagatatg
19261 gggtggaaga taagaatgtt cattttacgt tttgttacac aaatccaatc gaacctcgaa
19321 agcaaacccg ataaaagagc agtattttca ataatctccc aaatctccac aaaacatccc
19381 gaaatcatac atttggttgt aaagtcattg ttgtcgacgt gcaacaagat aatatctctc
19441 tctgactatg aatatgacat caccagggcc tataagaatg aattcaatcc atcatttgtg
19501 gaaatactgg acacttcgac cacaagcttc cctaaaacgt ttactgaaga aatgaataac
19561 tttgataacc ccaagtattt tatcgatttg agggcgtatg tagggtggct atgttgggga
19621 aggcttatgt acgtcatgtc gccgaaagct ttaaagctca atttacgtga gaatgaactg
19681 gaagtcctca agacagctgg tcatctattg acaagagaat tcctgagaga tgttacaatg
19741 aatttagtcc aagataatga aactaggggt gtttttagta gtggtaacgt gtcatttttc
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19921 atagtggctg gcttagtttg cgggagtaag tttatgtcag tctctgactt ggacaaacgt
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20041 tttgaaattt ggagcacctt ggcatggtgg ttgcctgcag tcgttgattt aagaaggtct
20101 aaaacttttt tttgccattt tatcaacgcc gatggcatgt ttgaccgtga atctgatgca

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20161 gccacacatc aaacctccaa aatttacatg ctaagaagta tcttgatgag catggaattt
20221 agagccccag atgttggtaa gctatttgat gagttggtat ttgatcaccc atacgatcag
20281 gttcgccagc tgtcgctaaa ctattgacga ccttagttca aaatcaaagt aatccgtcaa
20341 tttcagatcc aaccacatta ttagaagcag aacggaatga tcc
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SEQ ID No. 2

```
   1 mgsfplaefp lrdipvpysy rvsggiassg svtalvtaag thrnsstakt vetedgeedi
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 121 ekllmsvddg saapstlsvn mgvashnvaa pttvnaatit gsdvsnnvns atinnpmeeg
 181 alplsptass pgtttplakt tktinnnnni adlieskdsi ispeylsdei fsainnnlph
 241 ayfknllfrl vammdrsels dlgtlikdnl krdlitslpf eislkifnyl qfediinslg
 301 vsqnwnkiir kstslwkkll isenfvspkg fnslnlklsq kypklsqqdr lrlsflenif
 361 ilknwynpkf vpqnttlrgh mtsvitclqf ednyvitgad dkmirvydsi nkkfllqlsg
 421 hdggvwalky ahggilvsgs tdrtvrvwdi kkgccthvfk ghnstvrcld iveyknikyi
 481 vtgsrdntlh vwklpkessv pdhgeehdyp lvfhtpeenp yfvgvlrghm asvrtvsghg
 541 nivvsgsydn tlivwdvaqm kclyilsght driystiydh erkrcisasm dttiriwdle
 601 niwnngecsy atnsaspdak ilgamytlqg htalvgllrl sdkflvsaaa dgsirgwdan
 661 dysrkfsyhh tnlsaittfy vsdnilvsgs enqfniynlr sgklvhanil kdadqiwsvn
 721 fkgktlvaav ekdgqsflel ldfskaskin yvsnpvnsss sslesistsl gltrttiip
```

The human F-box protein hβTrCp is encoded by a nucleic acid sequence corresponding to GenBank Accession No. NM_003939 (SEQ ID No. 3) as shown below, and which encodes the F-box protein corresponding to GenBank Accession No. 4502477 (SEQ ID No.4) as shown below.

SEQ ID No.3

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   1 tgcgttggct gcggcctggc accaaagggg cggccccggc ggagagcgga cccagtggcc
  61 tcggcgatta tggacccggc cgaggcggtg ctgcaagaga aggcactcaa gtttatgaat
 121 tcctcagaga gagaagactg taataatggc gaacccccta ggaagataat accagagaag
 181 aattcactta gacagacata caacagctgt gccagactct gcttaaacca agaaacagta
 241 tgtttagcaa gcactgctat gaagactgag aattgtgtgg ccaaaacaaa acttgccaat
 301 ggcacttcca gtatgattgt gcccaagcaa cggaaactct cagcaagcta tgaaaaggaa
 361 aaggaactgt gtgtcaaata ctttgagcag tggtcagagt cagatcaagt ggaatttgtg
 421 gaacatctta tatcccaaat gtgtcattac caacatgggc acataaactc gtatcttaaa
 481 cctatgttgc agagagattt cataactgct ctgccagctc ggggattgga tcatatcgct
 541 gagaacattc tgtcatacct ggatgccaaa tcactatgtg ctgctgaact tgtgtgcaag
 601 gaatggtacc gagtgacctc tgatggcatg ctgtggaaga agcttatcga gagaatggtc
 661 aggacagatt ctctgtggag aggcctggca gaacgaagag gatggggaca gtatttattc
 721 aaaaacaaac ctcctgacgg gaatgctcct cccaacttct tttatagagc actttatcct
```

```
 781 aaaattatac aagacattga gacaatagaa tctaattgga gatgtggaag acatagttta
 841 cagagaattc actgccgaag tgaaacaagc aaaggagttt actgtttaca gtatgatgat
 901 cagaaaatag taagcggcct tcgagacaac acaatcaaga tctgggataa aaacacattg
 961 gaatgcaagc gaattctcac aggccataca ggttcagtcc tctgtctcca gtatgatgag
1021 agagtgatca taacaggatc atcggattcc acggtcagag tgtgggatgt aaatacaggt
1081 gaaatgctaa acacgttgat tcaccattgt gaagcagttc tgcacttgcg tttcaataat
1141 ggcatgatgg tgacctgctc caaagatcgt tccattgctg tatgggatat ggcctcccca
1201 actgacatta ccctccggag ggtgctggtc ggacaccgag ctgctgtcaa tgttgtagac
1261 tttgatgaca agtacattgt ttctgcatct ggggatagaa ctataaaggt atggaacaca
1321 agtacttgtg aatttgtaag gaccttaaat ggacacaaac gaggcattgc ctgtttgcag
1381 tacagggaca ggctggtagt gagtggctca tctgacaaca ctatcagatt atgggacata
1441 gaatgtggtg catgtttacg agtgttagaa ggccatgagg aattggtgcg ttgtattcga
1501 tttgataaca agaggatagt cagtggggcc tatgatggaa aaattaaagt gtgggatctt
1561 gtggctgctt tggacccccg tgctcctgca gggacactct gtctacggac ccttgtggag
1621 cattccggaa gagtttttcg actacagttt gatgaattcc agattgtcag tagttcacat
1681 gatgacacaa tcctcatctg ggacttccta aatgatccag ctgcccaagc tgaacccccc
1741 cgttcccctt ctcgaacata cacctacatc tccagataaa taaccataca ctgacctcat
1801 acttgcccag gacccattaa agttgcggta tttaacgtat ctgccaatac caggatgagc
1861 aacaacagta acaatcaaac tactgcccag tttccctgga ctagccgagg agcagggctt
1921 tgagactcct gttgggacac agttggtctg cagtcggccc aggacggtct actcagcaca
1981 actgactgct tcagtgctgc tatcagaaga tgtcttctat caattgtgaa tgattggaac
2041 ttttaaacct cccctcctct cctcctttca cctctgcacc tagtttttc ccattggttc
2101 cagacaaagg tgacttataa atatatttag tgttttgcca gaaaaaaaaa a
```

SEQ ID No. 4

```
   1 mdpaeavlqe kalkfmnsse redcnngepp rkiipeknsl rqtynscarl clnqetvcla
  61 stamktencv aktklangts smivpkqrkl sasyekekel cvkyfeqwse sdqvefvehl
 121 isqmchyqhg hinsylkpml qrdfitalpa rgldhiaeni lsyldakslc aaelvckewy
 181 rvtsdgmlwk kliermvrtd slwrglaerr gwgqylfknk ppdgnappns fyralypkii
 241 qdietiesnw rcgrhslqri hcrsetskgv yclqyddqki vsglrdntik iwdkntleck
 301 riltghtgsv lclqydervi itgssdstvr vwdvntgeml ntlihhceav lhlrfnngmm
 361 vtcskdrsia vwdmasptdi tlrrvlvghr aavnvvdfdd kyivsasgdr tikvwntstc
 421 efvrtlnghk rgiaclqyrd rlvvsgssdn tirlwdiecg aclrvleghe elvrcirfdn
 481 krivsgaydg kikvwdlvaa ldprapagtl clrtlvehsg rvfrlqfdef qivssshddt
 541 iliwdflndp aaqaepprsp srtytyisr
```

The yeast F-box protein Grr1p is encoded by a nucleic acid sequence corresponding to GenBank Accession No. M59247 (SEQ ID No. 5) as shown below, and which

encodes the F-box protein corresponding to GenBank Accession No. AAA34652 (SEQ ID No.6) as shown below.

SEQ ID No. 5

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 541 aaccacaatg acagcaatag gctgcaccca cctgatatac atccaaattt gggccctcaa
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4321 aagtttcaat aaaatttgtg gcagtatagt aatcccttct caatatgtcc aatttcttat
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SEQ ID No 6

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1141 easgtpdedm l
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The yeast F-box protein Met30p is encoded by a nucleic acid sequence corresponding to nucleotides 3742 to 5664 of GenBank Accession Nos. Z46861 and Z47047 (SEQ ID No. 7) as shown below, and which encodes the F-box protein corresponding to GenBank Accession No. CAA86905 (SEQ ID No.8) as shown below.

SEQ ID No. 7

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 481 caccgacctg cgcaattgga taaggcagag gagcgtcacc ggtaaccctg aataggtgaa
 541 cattggcaac atgttcattt tcgactctga agatgatcca aacgaatctt cttaaaacct
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601 ccaaaagggc caatataaac gacgtcacag cactctgctg aattgtttga ggagcaattg
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SEQ ID No. 8

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The fission yeast F-box protein Pop2 encodes a novel F-box/WD-repeat protein involved in the proteolysis of the Cdc2p inhibitor Rum1p and the replication initiator Cdc18p and is encoded by a nucleic acid sequence corresponding to GenBank Accession No. AF038867 (SEQ ID No. 9) as shown below, and which encodes the F-box protein corresponding to GenBank Accession No. AAB95480 (SEQ ID No.10) as shown below.

SEQ ID No.9

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 121 tcttcactta ttcatgggga taacctgctt cctcaagatg atcaaattgc atcggatcct
 181 cgctcagaat caaatagttg taatggcaat acgagttctt ccctgccgtg cactgattcg
 241 tatcagtacc cattaaagca ttcttgtacg ccttcttttc ttcgaaagtt taatgaaagt
 301 atagagaatg tctcttataa atgcttagac cactcaccgc cagatagtgt tcctggcgat
 361 ttttccattt cccttgttcc tcaaaggaat tttctatatt ctcattcttc tcttccacct
 421 aaaattatat caattgatag aaacaatcga attaagttag ataatagcat ttcatctaac
 481 tccgacaatt tccctccttc tccgaaagtc gacacatcaa acactgtttc acctggtagt
 541 aaacctatct ctgaggatct tgaagattta aacttacagt caattgttca aacttttgag
 601 gatcttccag aaggaattca atcttatgcg ttttttcaac tactccgttc gtgcaatcgg
 661 caatcgatgc gtttattatt gaatgaatgc gagccgcttc taaaaaaaga tatactttca
 721 aatcttcctt tttccattgt tcagtcttata ttattaaatc tggatataca ttcttttctt
 781 tcttgccgtc ttgtttcgcc tacttggaat agaatacttg atgtgcatac ttcatactgg
 841 aaacacatgt ttagtttatt tggctttcaa atcaatgaaa atgactggaa atatgctaat
 901 ccaaacttaa atcgtccacc ttttttgcac aacgaccaaa tctcagatga ctattttccg
 961 gaaattttca aaagacattt tctcaataga aaacgatggt tatttccttc gatacctcca
1021 agtcatctat cttttcccat tcatgttcca aactttatga taacttcttt actacttcat
1081 aaagacagaa taatcaccac ttcgggatct ggaacaattc aaattcataa tgctattacc
1141 ggtgttttag aagctcgatt agagggtcat aaagaaggtg tttgggctgt caaaatacat
```

```
1201 gagaatacac ttgtatctgg ttcgatcgat aaaactgttc gcgtttggaa catagagaaa
1261 gctaaatgta cgcacatatt taggggacat atttccatca tcagatgctt agagatctta
1321 gttccgagtc gtcttattcg ccatggagtt gaaattgttg aaccagatca accgtacatt
1381 gtcagcggct ctcgggatca tacacttcgg gtttggaagc ttccaaaaaa cacggatcct
1441 ccttatcttc cagataatac aaactctatt gaccgttggg agaagaaccc gtattttgta
1501 catactttga taggacatac agactctgta cgaactatat ccggctatgg tgatatactt
1561 gtgagtggga gttatgattc ttcaattcgc atttggagag tttcaacagg ggaatgtctt
1621 taccatctgc ggggtcatag tcttcgtata tatagtgttt tatatgaacc agaaaggaat
1681 atttgcataa gcggtagcat ggataagtcc attagggttt gggatttatc gacagggact
1741 tgtaaatatg tgcttgaagg ccatgatgcc tttgttacgc ttcttaatgt attccagaat
1801 aggttgatat caggttctgc tgactccaca attagaatat gggatttgaa tactgggaaa
1861 ccattaatgg ttttgccgtc taattcaggc tacattagta gctttgtgtc agatgaacac
1921 aaaattatta gtggtaatga tggttctgta aagttatggg atgttaggac tggaaagctg
1981 ttacgttttc tattaacaga cctcacaaaa atatggcatg tcgattttga tgctatgcgt
2041 tgtgtggctg cagtgcagcg tgatgatcaa gcatatttgg aagttattaa tttttccgga
2101 tcaagaccgt ag
```

SEQ ID No.10

```
   1 mslsrcptdn sssrinssvp linssspatp pesfdpqvfp sslihgdnll pqddqiasdp
  61 rsesnscngn tssslpctds yqyplkhsct psflrkfnes ienvsykcld hsppdsvpgd
 121 fsislvpqrn flyshsslpp kiisidrnnr ikldnsissn sdnfppspkv dtsntvspgs
 181 kpisedledl nlqsivqtfe dlpegiqsya ffqllrscnr qsmrlllnec epllkkdils
 241 nlpfsivqsi llnldihsfl scrlvsptwn rildvhtsyw khmfslfgfq inendwkyan
 301 pnlnrppflh ndqisddyfp eifkrhflnr krwlfpsipp shlsfpihvp nfmitslllh
 361 kdriittsgs gtiqihnait gvlearlegh kegvwavkih entlvsgsid ktvrvwniek
 421 akcthifrgh isiircleil vpsrlirhgv eivepdqpyi vsgsrdhtlr vwklpkntdp
 481 pylpdntnsi drweknpyfv htlightdsv rtisgygdil vsgsydssir iwrvstgecl
 541 yhlrghslri ysvlyepern icisgsmdks irvwdlstgt ckyvleghda fvtllnvfqn
 601 rlisgsadst iriwdlntgk plmvlpsnsg yissfvsdeh kiisgndgsv klwdvrtgkl
 661 lrflltdltk iwhvdfdamr cvaavqrddq aylevinfsg srp
```

The murine F-box protein FWD1p involved in ubiquitin-dependent degradation of IkappaBalpha and is encoded by a nucleic acid sequence corresponding to GenBank Accession No. AF081887 (SEQ ID No. 11) as shown below, and which encodes the F-box protein corresponding to GenBank Accession No. AAD17755 (SEQ ID No.12) as shown below.

SEQ ID No. 11

```
   1 gaattcggca cgaggcggag ctgcgttggc tgcggcctgg cacgaaaggg gcggccccgg
  61 cggagagcag acccagtagt ccgggcgatc atggacccgg cagaggcggt gctgcaggag
```

121 aaagcgctta agtttatgaa ttcctcagag agagaagact gtaataatgg cgaacccct
181 aggaagataa taccagagaa gaattcactt agacagactt acaacagctg tgccaggctt
241 tgcataaacc aagagacagt atgtctaaca agcactgcta tgaagactga aaattgtgtg
301 gccaaagcca aacttgccaa tggcacttcc agcatgattg tgcccaagca gcggaaactc
361 tcagcaagct atgagaagga aaaggagctg tgtgtcaagt attttgagca gtggtcagag
421 tctgatcaag tggaatttgt agaacacctt atatcccaaa tgtgtcacta ccagcatggg
481 cacatcaact cctacctaaa acctatgctg cagagggatt tcataactgc actgccagca
541 cggggtctgg accacatcgc tgagaacatt ctgtcatact tggacgccaa gtcactgtgt
601 gctgctgagc tcgtgtgcaa ggaatggtac cgcgtgacgt cggacggcat gctgtggaaa
661 aagctcatcg agaggatggt caggacggac tctctgtggc gaggcctggc agagcgcaga
721 ggctggggac agtacttatt caaaaacaaa cctcctgatg agaacgctcc tcccaactcc
781 ttttatagag cgctttatcc taaaatcata caagacattg agacaataga gtccaattgg
841 agatgtgggc gacatagttt acagagaatc cactgccgga gtgaaacaag taaggggtt
901 tactgtttac agtacgacga ccagaagata gtcagcggcc ttcgagacaa caccatcaag
961 atctgggata aaagcacact ggaatgcaag cggattctca cgggccacac gggctccgtc
1021 ctgtgtctgc agtacgatga gagggtgatc atcacaggct cctcagactc caccgtcaga
1081 gtgtgggatg taaatgcagg tgagatgcta aacacattga ttcaccactg tgaagccgtt
1141 ctgcacctgc gcttcaataa tggcatgatg gtgacctgtt ccaaagaccg ttccatcgct
1201 gtgtgggata tggcttcccc aactgacatc accctcagga gggtgctggt gggacaccga
1261 gctgcggtca atgttgtaga ctttgatgac aagtacatcg tttctgcctc tggagataga
1321 accataaagg tgtggaacac aagtacctgt gaattcgtaa ggaccctaaa tgggcacaag
1381 cgtggcatcg cctgtttgca gtacagagac aggctggtgg tgagcggctc ctctgacaac
1441 accatcaggc tgtgggacat agagtgtgga gcatgcctgc gagtgttgga gggccatgag
1501 gagttggtac gctgcattcg atttgataac aaaaggatag tgagcggagc ctatgatggg
1561 aaaattaaag tgtgggatct tatggctgct ttggacccgc gtgctccagc agggactctc
1621 tgtctgcgga cacttgtgga gcattctgga agagttttcc gcctccagtt tgatgaattc
1681 cagattgtca gtagttcaca tgatgacaca attctcatct gggacttcct gaatgatcca
1741 gctgctcacg ctgaaccgcc ccgctcccct tctcggacat acacctacat ctccagataa
1801 ataacccaac actggcctca taattgccca ggattcgtta atgttgcagt atttaacaga
1861 cctgccaaga ccaggatgaa caacaattcaa actcctaccc ggattcccgg acggatgagc
1921 gaggagcagg gctttgagac tcctgttggg acacagtcgg tcagcagccg accaggacgg
1981 cctgctcggc accggctgcc tcagtgctgc tatcagaaga tgtctttatc ttgtgtgaat
2041 gattggaact tccaagcctc cctcccctc ccttcccctt cctccctgca cctgtttccc
2101 tcccattggg ttccagacaa agatgactta taaatatatt tagtgttttg cctaaaaaaa
2161 aaaaaaaaaa aaaaa

SEQ ID No. 12

1 mdpaeavlqe kalkfmnsse redcnngepp rkiipeknsl rqtynscarl cinqetvclt
61 stamktencv akaklangts smivpkqrkl sasyekekel cvkyfeqwse sdqvefvehl

```
121 isqmchyqhg hrmsylkpml qrdfitalpa rgldhiaeni lsyldakslc aaelvckewy
181 rvtsdgmlwk kliermvrtd slwrglaerr gwgqylfknk ppdenappns fyralypkii
241 qdietiesnw rcgrhslqri hcrsetskgv yclqyddqki vsglrdntik iwdkstleck
301 riltghtgsv lclqydervi itgssdstvr vwdvnageml ntlihhceav lhlrfnngmm
361 vtcskdrsia vwdmasptdi tlrrvlvghr aavnvvdfdd kyivsasgdr tikvwntstc
421 efvrtlnghk rgiaclqyrd rlvvsgssdn tirlwdiecg aclrvleghe elvrcirfdn
481 krivsgaydg kikvwdlmaa ldprapagtl clrtlvehsg rvfrlqfdef qivssshddt
541 iliwdflndp aahaeppesp srtytyisr
```

Other exemplary polypeptides and nucleic acids for use in the invention include:

Exemplary SCF subunit-encoding genes and their encoded polypeptides include Skp1p (GenBank Accession No.U61764) which encodes Skp1p (GenBank Accession No. AAC49492); and the murine SCF complex protein cul-1 (encoded by the nucleic acid of GenBank Accession No.AF083216 which encodes the cul-1 polypeptide of GenBank Accession No. AAD16038).

Equivalents

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents of the specific embodiments of the invention described herein. Such equivalents are intended to be encompassed by the following claims.